

February 2012





CDPH SNF QAP: Proposed Measure Selection Criteria

Introduction

The California legislation, AB 19, which was passed in June of 2011, requires the California Department of Public Health (CDPH) to implement a Skilled Nursing Facility (SNF) Quality and Accountability Program (QAP). In consultation with the long-term care industry, organized labor and consumers, CDPH shall establish a set of performance measures for the SNF Quality and Accountability Program. CDPH shall pay supplemental payment to the SNFs based on established criteria and performance benchmarks. Beginning in fiscal year 2011-2012, the following quality and accountability measures are to be implemented:

- Immunization rates
- Facility acquired pressure ulcer incidence
- Physical restraints
- Resident and family satisfaction
- Nursing hours per patient per day

Based on the list above, it is evident that the SNF QAP will consist of both clinical quality measures and accountability measures. The clinical quality measures are those that pertain to clinical processes and outcomes of care. Beginning in fiscal year 2013-2014, additional measures will be incorporated into the program. The quality measures to be selected should include but not limited to quality measures required by the federal health care reform that are identified by the Centers for Medicare & Medicaid Services (CMS) (see Appendix A).

As California phases in its quality and accountability initiative, additional system design is warranted to guide selection of future quality measures for the program. This paper is focused primarily on clinical quality measures. CDPH engaged Health Services Advisory Group, Inc. (HSAG) to perform the following:

- Conduct a review of the literature to identify measure selection criteria that have been recommended when selecting clinical quality measures for payment incentive programs, as well as evidence to support measure selection design.
- Summarize various clinical quality measure selection criteria used in other related programs.
- Synthesize evidence obtained and recommend measure selection criteria that can serve as the foundation for selection of future clinical quality measures in the SNF QAP.



Background

Public and private payers are developing incentive payment programs as part of a broader national movement to improve the quality and cost effectiveness of health care services. These initiatives have arisen in response to concerns that traditional payment schemes reward the volume of services provided, while placing little emphasis on the quality and efficiency of health care. As such, employers, health plans, and government programs are embracing initiatives that link payment to quality and that encourages the use of limited resources effectively.

Search Strategy and Selection

HSAG conducted an electronic search of the database PUBMED and the Internet using Google U.S. Government Search for information describing incentive payment programs' quality measure selection designs in both SNF and non-SNF home settings. Primary documents and articles were reviewed for mention of quality measure selection criteria, and reviewed the reference lists were reviewed for additional sources. Articles and incentive payment program descriptions were selected for this report if they indicated quality measure selection criteria.

Results

HSAG's search revealed that there are a number of incentive payment programs nationwide. In a study funded by the Robert Wood Johnson Foundation (RWJF) in 2007, the authors reported that there are about 115 public and private payment incentive programs operating in the United States. A report on state Medicaid pay-for-performance programs stated that by 2012 over 85 percent of Medicaid agencies will have instituted payment incentive programs. However, there is no evidence on how to best select measures for inclusion in an incentive payment program. As a result, there are a variety of measure selection approaches used by both the public and private sector in their existing programs.

A study conducted for the State of Washington examined nursing home incentive payment programs in five states (Iowa, Minnesota, Oklahoma, Utah, and Vermont). The authors interviewed representatives from each of the five states and gathered insight on lessons learned and best practices associated with their implementation of an incentive payment program.³ Themes that emerged from this study that are applicable for this report include:

Sautter K M, Bokhour BG, White B, et al. The Early Experience of a Hospital-Based Pay-for-Performance Program. *Journal of Healthcare Management*. 2007; 52(2).

² Kuhmerker K, Hartman T. Pay-For-Performance in State Medicaid Programs: A Survey of State Medicaid Directors and Programs. The Commonwealth Fund; Apr 2007. Available at: http://www.commonwealthfund.org/usr_doc/Kuhmerker_P4PstateMedicaidprogs_1018.pdf. Accessed on: Jan 25, 2012.

³ L&M Policy Research. Strategies in Pay-For-Performance. Washington, D.C. L&M Policy Research; May 18, 2011. Available at: www.whca.org/docs/hotnews/Strategies-for-Pay-for-Performance.pdf. Accessed on: Jan 26, 2012.



- Establishment of meaningful measures that adequately measure performance.
- Minimizing administrative burden and data collection requirements by using existing systems for reporting performances.
- Phasing in of measures allows facilitates to accept and providers to learn the quality measures.

Despite the increase in nursing home incentive programs, information on nursing home incentive payment programs by states is limited due to lack of published literature. Only three states (Minnesota, Ohio, and Virginia) have published literature on their program design. Out of these three states, only two (Minnesota and Ohio) have a clearly articulated quality measure selection criteria for their program. However, there is ample information documenting incentive payment programs implemented outside the nursing home setting. Key features of selected public and private program-specific measure selection criteria are summarized in Appendix B.

On the other hand, organizations such as the Agency for Healthcare Research and Quality (AHRQ), Institute of Medicine (IOM), Medicare Payment Advisory Commission (MedPAC), and the National Quality Forum (NQF) have each issued guidelines and recommendations for evaluating individual quality measures for accountability and quality improvement purposes.

- AHRQ is an agency within the Department of Health and Human Services (HHS) and is dedicated to improving the quality, safety, efficiency, and effectiveness of care for all Americans. In 2010, AHRQ developed a Decision Guide to help community quality collaborative leaders find answers to the critical questions that need to be considered when adopting performance measures. Included in The Guide are measure characteristics to consider when developing a measure set. Although the Decision Guide focuses on hospital and physician data and measures, some of the underlying principles or criteria are applicable to nursing home quality measures. More information about AHRQ can be accessed at http://www.ahrq.gov.
- The *IOM* is an independent, non-profit organization that provides unbiased information and advice to decision makers and the public. In 2006, the IOM developed a set of criteria that can be used to evaluate individual measures and/or a set of measures specifically for payment incentive programs for Medicare. More information about the IOM can be accessed at http://www.iom.edu.
- MedPAC is an independent Congressional agency that advises the U.S. Congress on issues pertaining to the Medicare program. In 2003, MedPAC recommended the use of financial incentives within the Medicare program and established a criteria for identifying and using effective measures that can be linked to incentive payments. More information about MedPAC can be accessed at http://www.medpac.gov.
- NQF is an independent consensus-based organization that currently endorses health care quality measures. The NQF endorsement process involves careful review and assessment of quality measures by multiple stakeholders across the health care enterprise including patients and/or caregivers, purchasers, providers, and measurement experts. Using five measure evaluation criteria, NQF develops consensus among these stakeholders on which measures to endorse as the "best in class". NQF is recognized as the entity in the United States with the lead responsibility for endorsing health care quality measures which includes determining which measures should be recognized as national standards. As such, a new legislative



requirement enacted by the Patient Protection and Affordable Care Act (ACA) requires the use of NQF-endorsed measures for value-based payment for providers. More information about the NQF can be accessed at www.qualityforum.org.

Appendix C presents a side-by-side comparison of the quality measure selection criteria developed by these organizations.

Discussion

HSAG reviewed published literature on quality measurement and measure selection criteria developed by AHRQ, IOM, MedPAC, and NQF. Both the IOM and NQF measure selection criteria are specific for the evaluation of individual measures. Similarly, for the incentive payment programs' found through the literature search, HSAG analyzed the measure selection criteria for both measure sets and individual measures and looked for predominant themes. HSAG created a crosswalk of the various programs' criteria with the NQF criteria (see Appendix D).

As a result of this analysis, the predominant themes can be synthesized into four out of the five criteria used by NQF. Compared to the other measure selection criteria reviewed, the NQF measure evaluation criteria encompass a broader array of characteristics that are important to consider when assessing a candidate measure for the CDPH SNF Quality and Accountability Program. Additionally, the criteria used by NQF are aligned with most public and private incentive payment programs' measure selection design. Specifically, the five NQF criteria are explained below.

The first NQF criterion is *Importance to Measure and Report*. This criterion includes the following sub-criteria:

- **High impact**—The measure focus must address a specific health goal related to national priorities, or, it must address a high impact aspect of health care (i.e., affects a large number of patients and/or has substantial impact on small population, leading cause of morbidity/mortality, high resource use, or has severe consequences of poor care).
- **Performance gap**—there must be demonstration of quality problems and opportunity for improvement.
- Evidence to support the measure focus—There must be high or moderately high quality, quantity, and consistency in the body of evidence to support the measure focus, and the evidence demonstrates that implementing the measure will lead to desired health outcomes with benefits that outweigh the harms.

The second NQF criterion is Scientific Acceptability of Measure Properties. This includes:

- **Reliability**—The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability.
- Validity—The measure specifications are consistent with the evidence that supports the measure focus. The measure when implemented correctly reflects the quality of care



provided and allows for identification of statistically significant and clinically meaningful differences in performance. The measure specifications allow for identification of disparities.

The third NQF criterion is *Usability*. This includes:

- Demonstration that information produced by the measure is meaningful and understandable to the intended audience.
- Demonstration that the information produced by the measure is actionable or improvable by impacted providers.

The fourth NQF criterion is *Feasibility*. This includes:

- The required data elements are routinely generated and used during care delivery.
- The required data elements are available in electronic health records or other electronic data sources.
- Any potential inaccuracies, errors or unintended consequences as a result of measures implementation must be addressed or minimized. The data elements must be auditable.
- There must be demonstration that the data collection strategy can be implemented.

NQF has recently added a fifth criterion which is *Comparison to Related and Competing Measure*. This includes:

- The measure specifications are harmonized with related measures.
- The measure is superior to competing measure.

See Appendix E for more details.



Recommendations

In order to be selected for inclusion in the SNF Quality and Accountability Program, HSAG proposes that each individual quality measure be evaluated based on the following NQF measure evaluation criteria:

Importance

For a quality measure to be included in the program, it must address a national or state priority, including those of the state legislature and CMS, and/or address high impact conditions or address a performance gap relevant to the nursing home population. It must also be based on sound scientific evidence that demonstrates linkage to desired health outcomes. For example, the national evidence that states almost 1 in 10 nursing home residents have a urinary tract infection demonstrates the importance of the Nursing Home Minimum Data Set (MDS) 3.0 measure "Percent of Residents with a Urinary Tract Infection."

Scientific Acceptability

The quality measure must be precisely specified and must be valid (i.e., it captures the aspect of care that it is intended to capture). In addition, it must be reliable (i.e., it is repeatable when implemented across providers). Statistical testing must be conducted in order to assess the validity and reliability of a measure before it is implemented. For outcome measures, an evidence-based risk adjustment method must be specified. Risk adjustment models correct outcome estimates for unaccounted differences in the case mix. This will help address concerns regarding fairness to facilities, and avoid unintended consequences where facilities avoid admission of the sickest patients, thus limiting access to nursing home care to those who need it the most.⁵

Feasibility

To meet the feasibility criterion, a measure must be readily available for data collection or could be captured without burden to the facilities, thus available for implementation and calculation. The MDS 3.0 as well as OSCAR are existing data sources that are currently operational and are a part of the routine care in nursing home facilities. They are suitable data collection sources, cost effective, and do not pose undue burden for facilities. These sources ensure that the required data elements are available and can be routinely generated for data collection. In contrast, data that require abstraction from individual medical charts will necessitate employing a nurse or certified person with medical knowledge to abstract the data. This is both time-consuming and costly to the facilities.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2741305/. Accessed on: Jan 31, 2012.

⁴ National Quality Forum. *Measure Evaluation 4.1*. NQF; Dec 2009. Available at:

http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=56818. Accessed on: Jan 24, 2012 Mukamel D B, Glance LG, Li Y, et al. Does Risk Adjustment of the CMS Quality Measures for Nursing Homes Matter? *Medical Care*, May 2008;46(5):532-541. Available at:



A measure that imposes duplicative data collection on providers can potentially result in decreased provider commitment to quality assessment and improvement.⁶ States that have implemented incentive payment programs recommend allowing providers to use existing systems to collect and report performance, which minimizes data collection burden and reporting challenges associated with the implementation of an incentive payment program.⁷

Usability

An overall goal in an incentive payment program is to motivate providers at all levels of care to improve their performance. In order to improve on their performance, facilities must be able to understand each measure, compare their performance from their peers, and monitor progress on their performance. To meet the usability criterion, HSAG recommends that a measure must have been used in feedback reports to nursing homes or public reporting for at least one year prior to the measurement period. This ensures that nursing home facilities are given an opportunity to become familiar with the measure and improve their performance on a measure before it is linked to payment. States that have implemented incentive payment programs recommend a phasing-in approach before linking measures to performance.⁸

Comparison to Related and Competing Measures

For inclusion in this program, the quality measure must be aligned or harmonized with other related measures used in other health care settings. This will help avoid confusion on the part of SNFs and other providers as well as consumers in understanding measures that are similar but have some differences in measure calculation or construction. For example, the nursing home influenza measure captures all nursing home residents while the hospital influenza measure captures only pneumonia patients which are a subset of hospital patients.

CMS publicly reports on a set of MDS-based quality measures on Nursing Home Compare. In 2009, CMS implemented a nursing home value based purchasing demonstration program across three states (Arizona, New York, and Wisconsin). CMS is required by the Affordable Care Act to submit a plan to Congress on a national nursing home value based purchasing program. CMS also requires Quality Improvement Organizations to work on improving a set of selected measures with nursing facilities in their states. The effectiveness and success of the California SNF QAP will be greatly enhanced by the extent to which the measures selected for this program are aligned with those of CMS' various programs. Alignment with measures used by CMS will avoid undue burden and unnecessary confusion for the nursing facilities.

If there are competing measures, the measure selected must be judged to be the best measure in order for it to be used for payment incentives.

⁶ Rubin HY, Pronovost P, Diette GB. From a Process of Care to a Measure: The development and testing of a quality indicator. *International Journal for Quality in Health Care*, 2001;13(6):489-496. Available at: http://intqhc.oxfordjournals.org/content/13/6/489.full.pdf. Accessed on Jan 31, 2012

⁷ L&M Policy Research. *Strategies in Pay-For-Performance*. Washington, D.C. L&M Policy Research; May 18, 2011. Available at: www.whca.org/docs/hotnews/Strategies-for-Pay-for-Performance.pdf. Accessed on: Jan 26, 2012

⁸ Ibid.



Guidelines for Measure Set

Recently, the NQF convened the Measure Applications Partnership (MAP) to develop measure selection criteria to guide its evaluations of program measure sets. The MAP is a public-private partnership for the primary purpose of providing input to HHS on selecting performance measures for public reporting, performance-based payment programs, and other purposes. The statutory authority for MAP is the Affordable Care Act, which requires HHS to contract with NQF (as the consensus-based entity) to "convene multi-stakeholder groups to provide input on the selection of quality measures" for various use (see Appendix F).

Based on the MAP's proposed measure selection criteria for measure sets, HSAG also recommends the following guiding principles in the selection of a set of measures for the SNF Quality and Accountability Program:

- To the extent feasible, the measure set selected for this program must include an appropriate mix of measure types (process, outcome, structural, patient experience of care, and efficiency measures) to provide a robust picture of the quality of care delivered.
- To the extent feasible, the measure set selected includes measures that address the six priorities in the National Quality Strategy established by HHS: Safety, Care Coordination, Prevention and Treatments of Leading Causes of Mortality and Morbidity, Person and Family Centered Care, Supporting Better Health in Communities, and Affordable Care.
- The measure set must be parsimonious (i.e., it has the least number and the least burdensome measures sufficient to address the program's priorities).
- The measure set must include consideration for demonstration of disparities.

Limitations

HSAG recognizes that there are limitations to the recommended measure selection criteria. Many measures will not meet all five criteria to the fullest extent. For example, locally developed measures that have no empirical evidence to support its link to outcomes or are not specified for the MDS 3.0 will not meet the scientific acceptability and feasibility criteria. Since these measures selection criteria are aligned with NQF, the MDS measures that are NQF-endorsed would be the group of measures CDPH will target for measure selection. However, reliance on these nationally adopted measures pose a limitation because they may not address important local priorities relevant to California nursing homes and stakeholders. A delicate balance is needed to assure both scientific acceptability of the measure and its relevance and importance to the State's priorities.

⁹ National Quality Forum. *Measures Application Partnership Pre-Rulemaking Report, Public Comment Draft.* NQF; January 11, 2012. Available at: http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=69707. Accessed on: Jan 31, 2012



Conclusion

This project sought to provide CDPH with recommendations on measure selection criteria for the evaluation of individual candidate measures for its incentive payment program. To this end, this report summarized measure selection criteria described in existing incentive payment programs and in published guidelines from various organizations. Given that this program will affect thousands of SNFs, HSAG believes that a high bar must be set when selecting measures for the CDPH SNF Quality and Accountability Program. This entails careful evaluation of each measure using the proposed measure selection criteria described above, and only to select those that meet all five criteria to the fullest extent possible. This proposed measure selection criteria will help communicate CDPH's commitment to ensure that nursing home facilities are judged using valid and reliable measures that do not pose undue burden of data collection but have an impact on the outcomes of care for California residents. In addition, the usability criterion will help ensure a level playing field and affords each nursing home facility an opportunity to understand a measure before it is linked to payment.



Excerpt of AB 19 Legislation

- (i) (1) Beginning in the 2010–11 fiscal year, the department, in consultation with representatives from the long-term care industry, organized labor, and consumers, shall establish and publish quality and accountability measures, benchmarks, and data submission deadlines by November 30, 2010.
- (2) The methodology developed pursuant to this section shall include, but not be limited to, the following requirements and performance measures:
- (A) Beginning in the 2011–12 fiscal year:
- (i) Immunization rates.
- (ii) Facility acquired pressure ulcer incidence.
- (iii) The use of physical restraints.
- (iv) Compliance with the nursing hours per patient per day requirements pursuant to Section 1276.5 of the Health and Safety Code.
- (v) Resident and family satisfaction.
- (vi) Direct care staff retention, if sufficient data is available.
- (B) If this act is extended beyond the dates on which it becomes inoperative and is repealed, in accordance with Section 14126.033, the department, in consultation with representatives from the long-term care industry, organized labor, and consumers, beginning in the 2013–14 rate year, shall incorporate additional measures into the system, including, but not limited to, quality and accountability measures required by federal health care reform that are identified by the federal Centers for Medicare and Medicaid Services.
- (C) The department, in consultation with representatives from the long-term care industry, organized labor, and consumers, may incorporate additional performance measures, including, but not limited to, the following:
- (i) Compliance with state policy associated with the United States Supreme Court decision in Olmstead v. L.C. ex rel. Zimring (1999) 527 U.S. 581.
- (ii) Direct care staff retention, if not addressed in the 2012–13 rate year.
- (iii) The use of chemical restraints



Incentive Payment Programs and Measure Selection Criteria

CMS Home Health Pay-for-Performance Demonstration¹⁰

- 1. Measures will be a subset of the home health quality measures that are included in the Outcomes-Based Quality Indicators (OBQI) outcome reports.
- 2. Measures must meet the following criteria:
 - Validity
 - Extent to which the measure is under agency's control
 - Perceived room for improvement
 - Statistical performance
 - Importance

CMS Nursing Home Quality Based Purchasing Demonstration¹¹

- 1. Measures must be valid and reliable.
- 2. Measures must be under nursing home's control.
- 3. Measures should demonstrate good statistical performance, such as stability over time, distribution, and sample size.
- 4. Measures that reflect societal values should be considered.

Hospital Quality Incentive Demonstration (HQID) - Coordinated by the Premier Healthcare Alliance on Behalf of CMS¹²

- 1. Measures are based on scientific evidence.
- 2. Measures are reviewed for continued effectiveness and to account for medical breakthroughs and new research.
- 3. Measures are tested in care settings, validated by third parties, and proven over time to improve quality.

Integrated Healthcare Association (IHA) California P4P¹³

- 1. Clinically relevant.
- 2. Affect a significant number of people.
- 3. Scientifically sound and tested before implementation.
- 4. Feasible to collect using administrative data.
- 5. Physician groups and health plans can impact.
- 6. Capable of showing improvement over time.

Abt Associates. Home Health Pay-For-Performance Demonstration: Demonstration Design. Centers for Medicare & Medicaid Services; 2007. Available at:

https://www.cms.gov/DemoProjectsEvalRpts/downloads/HHPP_Presentation.pdf. Accessed on Jan 27, 2012

White A, Hurd D, Moore T, et al. *Quality Monitoring for Medicare Global Payment Demonstrations: Nursing Home Quality-Based Purchasing Demonstration: Final Design Report*. Centers for Medicare & Medicaid Services; 2006. Available at: https://www.cms.gov/DemoProjectsEvalRpts/downloads/NHP4P_FinalReport.pdf. Accessed on: Jan 24, 2012

¹² Devore SD. Results From the First 4 Years of Pay For Performance. *Healthcare Financial Management*. Jan 2010. Available at: http://www.premierinc.com/about/news/inthenews/10/hfm-jan10.pdf. Accessed on: Jan 24, 2012

¹³ Integrated Healthcare Association. *Advancing Quality Through Collaboration: The California Pay For Performance Program.* Oakland, CA: IHA; Feb 2006. Available at: http://www.iha.org/pdfs_documents/p4p_california/P4PWhitePaper1_February2009.pdf. Accessed on: Jan 23, 2012



Incentive Payment Programs and Measure Selection Criteria

- 7. Are important to California consumers.
- 8. Aligned with national measures (when feasible).

Massachusetts Medicaid Pay-For-Performance program¹⁴

- 1. Measures have been tried and tested by other national and statewide organizations.
- 2. Measures of processes of care should have demonstrated links to outcomes.
- 3. Measures represent a process or outcome of care that has significant impact on the MassHealth population.
- 4. The administrative burden needs to be reasonable for hospitals, and feasibility of measurement is a major consideration.
- 5. Measures should be known to have considerable variation across hospitals within Massachusetts.
- 6. Measures should have demonstrated significant associations with racial and ethnic disparities in health care either within or outside of Massachusetts.
- 7. Measures should focus on processes of care, outcomes of care, and patient experiences with care.
- 8. It is preferable to use measures that can be obtained without significant lag time between an event and its measurement.
- 9. Measures should be amenable to improvement.
- 10. Measures should be applicable to all or most hospitals in the Commonwealth.

Medicare ESRD Quality Incentive Program (QIP)¹⁵

- 1. Measures are collected from ESRD claims submitted to CMS for payment purposes.
- 2. Measures are important indicators of patient outcomes (i.e., avoidable hospitalizations, decreased quality of life, and death).

Medicare Hospital Value-Based Purchasing Program¹⁶

- 1. Selected from measures specified for the Hospital Inpatient Quality Reporting Program;
- 2. Address the following topics or conditions: Acute Myocardial Infarction (AMI), Heart Failure (HF), Pneumonia (PN), surgeries (i.e., Surgical Care Improvement Project [SCIP]); Healthcare Associated Infections (HAIs) and the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey.
- 3. Included on the Hospital Compare Web site for at least 1 year prior to the beginning of the performance period.

Physician Pay-for-Performance in Medicaid: A Guide for States¹⁷

- 1. Relevant to the targeted population.
- 2. Availability of standardized performance data implemented.

Weinick RM, Alegria M, Coltin KL, et al. (2007). Pay-for-Performance to Reduce Racial and Ethnic Disparities in Health Care in the Massachusetts Medicaid Program. Boston, MA: Massachusetts Medicaid Policy Institute; Jul 2007. Available at: http://www.massmedicaid.org/~/media/MMPI/Files/Pay%20for%20Performance%20to %20Reduce%20Racial%20and%20Ethnic%20Disparities.pdf. Accessed on: Jan 24, 2012

¹⁵ Department of Health and Human Services, Centers for Medicare & Medicaid Services. Jan 5, 2011. 42 CFR Part 413. Medicare Program; End-Stage Renal Disease Quality Incentive Program; Final Rule; Volume 76, Number 3, 628-646. Available at: http://edocket.access.gpo.gov/2011/pdf/2010-33143.pdf. Accessed on: Jan 15, 2012.

Department of Health and Human Services, Centers for Medicare & Medicaid Services. May 6, 2011. 42 CFR Parts 422 and 480. Medicare Program; Hospital Inpatient Value-Based Purchasing Program: Final Rule; Volume 76, Number 88, 26490-26547. Available at: http://www.gpo.gov/mwg-internal/de5fs23hu73ds/progress?id=7AWx/xrp70&dl. Accessed on: Jan 24, 2012.

¹⁷ Llanos K, Rithstein J, Dyer MB, Bailit M. *Physician Pay-For-Performance in Medicaid: A Guide for States*. Hamilton, NJ: Center for Health Care Strategies; Mar 2007. Available at: http://www.chcs.org/usr_doc/Physician_P4P_Guide.pdf. Accessed on Jan 31, 2012.



Incentive Payment Programs and Measure Selection Criteria

- 3. Frequency with which such performance data are available.
- 4. Opportunities for improvement.
- 5. Variations in performance.
- 6. Relevance to the state's priorities, including those of the state legislature.

Ohio Quality Incentive Program¹⁸

- 1. Resident focused/consumer driven.
- 2. Objective/easy to validate.
- 3. Evidence-based/correlated to quality/ideally used by multiple valid sources.
- 4. Advantageous for residents and operators.
- 5. Low cost to implement/easy to collect.
- 6. Something a nursing facility can act on to improve.

Minnesota Nursing Facility Performance-Based Incentive Payment Program (PIPP)¹⁹

Measures are selected by each participating nursing home facility:

- 1. Including, but not limited to the Minnesota Report Card measures.
- 2. If new measures are proposed, there should be clear criteria and standards of achievement. Facilities are encouraged to cite research that indicates the validity of the quality measure or any other evidence-based studies, for state's approval.

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¹⁸ Unified Long-Term Care System Advisory Group. *Report to the Ohio General Assembly*. Nursing Facility Quality Measurement Subcommittee; Sep 1, 2011. Available at: http://www.healthtransformation.ohio.gov/LinkClick.aspx?fileticket=qbMfTgw0xD0%3D&tabid=40. Accessed on Jan 24, 2012

¹⁹ Nursing Facility Performance-Based Incentive Payment Program (PIPP). (2012). Minnesota Department of Human Services. Laws of Minnesota 2006, Chapter 282, Article 20, Section 21, M.S. 256B.434, Subd. 4, paragraph d.





Quality Measure Selection Criteria Guidelines					
AHRQ ²⁰	IOM ²¹	MedPAC ²²	NQF ²³		
1. Does the indicator measure care that is a priority for quality improvement?	1. Scientific soundness – validity, reliability and explicitness of the evidence base.	1. Measures must be evidence based to the extent possible, broadly understood, and accepted.	1. Importance		
2. Does the indicator apply to a single disease or across multiple patient groups?	2. Feasibility – the data needed for a measure must be in current use, available across the system, and examined for the cost or burden of measurement on providers.	2. Most providers must be able to improve upon the measure.	2. Scientific Acceptability		
3. Does the indicator generate information about cost efficiency, health care processes, outcomes, or structure?	3. Importance – the condition or health problem addressed by a measure should be a leading cause of death or disability with high resource use.	3. Measures for the incentive program should not discourage providers from taking riskier or more complex patients.	3. Feasibility		
4. Does the indicator reflect technical competency or patient care experiences with care?	4. Alignment – measures should be selected from existing measure sets that are calculated with the same technical specifications for both the numerator and denominator to reduce redundancy and the burden of reporting.	4. Obtaining information to measure the quality of a plan must not pose an excessive burden on any of the parties involved.	4. Usability		

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²⁰ Romano P, Hussey P, Ritley D. *Selecting Quality and Resource Use Measures: A Decision Guide for Community Quality Collaboratives*. Rockville, MD: AHRQ; May 2010. Available at: http://ahrq.hhs.gov/qual/perfmeasguide/perfmeas.pdf. Accessed on: Jan 31, 2012.

²¹ Committee on Redesigning Health Insurance Performance Measures, Payment, and Performance Improvement Programs. *Rewarding Performance: Aligning Incentives in Medicare (Pathways to Quality Health Care Series).* Washington, D.C.: The National Academies Press;2007. Available at: http://www.nap.edu/catalog/11723.html. Accessed on: Jan 15, 2012

²² Medicare Payment Advisory Commission. *Report to the Congress: Variation and Innovation in Medicare*. Washington, D.C.: MEDPAC; Jun 2003. Available at: http://www.medpac.gov/documents/June03_Entire_Report.pdf .Accessed on: Jan 24, 2012

²³ National Quality Forum. Measure Evaluation Criteria. Jan 2011. Available at: http://www.qualityforum.org/docs/measure_evaluation_criteria.aspx#note1. Accessed on: Jan 31, 2012



Quality Measure Selection Criteria Guidelines				
AHRQ ²⁰	IOM ²¹	MedPAC ²²	NQF ²³	
5. Is the indicator actionable?	5. Comprehensiveness – measures selected should be a part of a set to reflect quality in a particular area of care or bundled of services of necessary care for a given condition.		5. Comparison to Related and Competing Measure	
6. Is there a valid source for the data needed to calculate the indicator? What is the cost of acquisition and validation of those data?				
7. Is the indicator nationally accepted or locally developed?				





Crosswalk of program measure selection criteria to NQF criteria **Public and Private Incentive Payment Programs** Ohio CMS Medicare Medicaid Minnesota CMS NH Quality Medicare Massachusetts Home HQID IHA Hospital **Guide for** Nursing **NQF** Criteria **Demonstration** Medicaid **ESRD** Incentive VBP Facility Health States **Program Importance** X X X X X X X X Scientific X X X X X Х X **Acceptability** Feasibility X X X X X X X X Usability Х Х X X X



National Quality Forum Measure Evaluation Criteria – January 2011

Conditions for Consideration

Several conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards. If any of the conditions are not met, the measure will not be accepted for consideration.

- A. The measure is in the public domain or a measure steward agreement is signed.
- B. The measure owner/steward verifies there is an identified responsible entity and a process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every three years.
- C. The intended use of the measure includes both public reporting and quality improvement.
- D. The measure is fully specified and tested for reliability and validity.¹
- E. The measure developer/steward attests that harmonization with related measures and issues with competing measures have been considered and addressed, as appropriate.
- F. The requested measure submission information is complete and responsive to the questions so that all the information needed to evaluate all criteria is provided.

Note

1. A measure that has not been tested for reliability and validity is only potentially eligible for time-limited endorsement if all of the following conditions are met: 1) the measure topic is not addressed by an endorsed measure; 2) it is relevant to a critical timeline (e.g., legislative mandate) for implementing endorsed measures; 3) the measure is not complex (requiring risk adjustment or a composite); and 4) the measure steward verifies that testing will be completed within 12 months of endorsement.

Criteria for Evaluation

If all conditions for consideration are met, candidate measures are evaluated for their suitability based on four sets of standardized criteria in the following order: *Importance to Measure and Report, Scientific Acceptability of Measure Properties, Usability, and Feasibility.* Not all acceptable measures will be equally strong among each set of criteria. The assessment of each criterion is a matter of degree. However, if a measure is not judged to have met minimum requirements for *Importance* to *Measure and Report or Scientific Acceptability of Measure Properties,* it cannot be recommended for endorsement and will not be evaluated against the remaining criteria.



1. Impact, Opportunity, Evidence-Importance to Measure and Report: Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-impact aspect of healthcare where there is variation in or overall less-than-optimal performance. Measures must be judged to meet all three subcriteria to pass this criterion and be evaluated against the remaining criteria.

1a. High Impact

The measure focus addresses:

• a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF;

OR

• a demonstrated high-impact aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality)

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data² demonstrating considerable variation, or overall less-than-optimal performance, in the quality of care across providers and/or population groups (disparities in care).

1c. Evidence to Support the Measure Focus

The measure focus is a health outcome or is evidence-based, demonstrated as follows:

- **Health outcome:** a rationale supports the relationship of the health outcome to processes or structures of care.
- Intermediate clinical outcome, Process, or Structure: a systematic assessment and grading of the quantity, quality, and consistency of the body of evidence that the measure focus leads to a desired health outcome.
- Patient experience with care: evidence that the measured aspects of care are those valued by patients and for which the patient is the best and/or only source of information OR that patient experience with care is correlated with desired outcomes.
- **Efficiency:** 6 evidence for the quality component as noted above.

Notes

2. Examples of data on opportunity for improvement include, but are not limited to: prior studies, epidemiologic data, or data from pilot testing or implementation of the proposed measure. If data are not available, the measure focus is systematically assessed (e.g., expert panel rating) and judged to be a quality problem.



- **3.** Generally, rare event outcomes do not provide adequate information for improvement or discrimination; however, serious reportable events that are compared to zero are appropriate outcomes for public reporting and quality improvement.
- **4.** Clinical care processes typically include multiple steps: assess identify problem/potential problem choose/plan intervention (with patient input) provide intervention evaluate impact on health status. If the measure focus is one step in such a multistep process, the step with the strongest evidence for the link to the desired outcome should be selected as the focus of measurement.
- **5.** The preferred systems for grading the evidence are the U.S. Preventive Services Task Force (USPSTF) grading definitions and methods, or Grading of Recommendations, Assessment, Development and Evaluation (GRADE) guidelines.
- **6.** Measures of efficiency combine the concepts of resource use and quality (NQF's Measurement Framework: Evaluating Efficiency Across Episodes of Care; AQA Principles of Efficiency Measures).
- **2.** Reliability and Validity-Scientific Acceptability of Measure Properties: Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. Measures must be judged to meet the subcriteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.

2a. Reliability

2a1. The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allow for comparability. EHR measure specifications are based on the quality data model (QDM).

2a2. Reliability testing demonstrates the measure data elements are repeatable, producing the same results a high proportion of the time when assessed in the same population in the same time period and/or that the measure score is precise.

2b. Validity

2b1. The measure specifications are consistent with the evidence presented to support the focus of measurement under criterion **1c.** The measure is specified to capture the most inclusive target population indicated by the evidence, and exclusions are supported by the evidence.

2b2. Validity testing demonstrates that the measure data elements are correct and/or the measure score correctly reflects the quality of care provided, adequately identifying differences in quality.

2b3. Exclusions are supported by the clinical evidence; otherwise, they are supported by evidence of sufficient frequency of occurrence so that results are distorted without the exclusion;¹¹

AND



If patient preference (e.g., informed decision making) is a basis for exclusion, there must be evidence that the exclusion impacts performance on the measure; in such cases, the measure must be specified so that the information about patient preference and the effect on the measure is transparent (e.g., numerator category computed separately, denominator exclusion category computed separately). 12

2b4. For outcome measures and other measures when indicated (e.g., resource use):

• an evidence-based risk-adjustment strategy (e.g., risk models, risk stratification) is specified; is based on factors that influence the measured outcome (but not factors related to disparities in care or the quality of care) and are present at start of care; and has demonstrated adequate discrimination and calibration

OR

• rationale/data support no risk adjustment/ stratification.

2b5. Data analysis of computed measure scores demonstrates that methods for scoring and analysis of the specified measure allow for identification of statistically significant and practically/clinically meaningful¹⁵ differences in performance;

OR

there is evidence of overall less-than-optimal performance.

2b6. If multiple data sources/methods are specified, there is demonstration they produce comparable results.

2c. Disparities

If disparities in care have been identified, measure specifications, scoring, and analysis allow for identification of disparities through stratification of results (e.g., by race, ethnicity, socioeconomic status, gender);

OR

rationale/data justifies why stratification is not necessary or not feasible.

Notes

- 7. Measure specifications include the target population (denominator) to whom the measure applies, identification of those from the target population who achieved the specific measure focus (numerator, target condition, event, outcome), measurement time window, exclusions, risk adjustment/stratification, definitions, data source, code lists with descriptors, sampling, scoring/computation.
- **8.** EHR measure specifications include data type from the QDM, code lists, EHR field, measure logic, original source of the data, recorder, and setting.
- **9.** Reliability testing applies to both the data elements and computed measure score. Examples of reliability testing for data elements include, but are not limited to: inter-rater/abstractor or intra-rater/abstractor studies; internal consistency for multi-item scales; test-retest for survey items. Reliability testing of the measure score addresses precision of measurement (e.g., signal-to-noise).



- 10. Validity testing applies to both the data elements and computed measure score. Validity testing of data elements typically analyzes agreement with another authoritative source of the same information. Examples of validity testing of the measure score include, but are not limited to: testing hypotheses that the measures scores indicate quality of care, e.g., measure scores are different for groups known to have differences in quality assessed by another valid quality measure or method; correlation of measure scores with another valid indicator of quality for the specific topic; or relationship to conceptually related measures (e.g., scores on process measures to scores on outcome measures). Face validity of the measure score as a quality indicator may be adequate if accomplished through a systematic and transparent process, by identified experts, and explicitly addresses whether performance scores resulting from the measure as specified can be used to distinguish good from poor quality.
- **11.** Examples of evidence that an exclusion distorts measure results include, but are not limited to: frequency of occurrence, variability of exclusions across providers, and sensitivity analyses with and without the exclusion.
- **12.** Patient preference is not a clinical exception to eligibility and can be influenced by provider interventions.
- **13.** Risk factors that influence outcomes should not be specified as exclusions.
- **14.** Risk models should not obscure disparities in care for populations by including factors that are associated with differences/inequalities in care, such as race, socioeconomic status, or gender (e.g., poorer treatment outcomes of African American men with prostate cancer or inequalities in treatment for CVD risk factors between men and women). It is preferable to stratify measures by race and socioeconomic status rather than to adjust out the differences.
- 15. With large enough sample sizes, small differences that are statistically significant may or may not be practically or clinically meaningful. The substantive question may be, for example, whether a statistically significant difference of one percentage point in the percentage of patients who received smoking cessation counseling (e.g., 74 percent v. 75 percent) is clinically meaningful; or whether a statistically significant difference of \$25 in cost for an episode of care (e.g., \$5,000 v. \$5,025) is practically meaningful. Measures with overall less-than-optimal performance may not demonstrate much variability across providers.
- **3. Usability:** Extent to which intended audiences (e.g., consumers, purchasers, providers, policymakers) can understand the results of the measure and find them useful for decision making.
- **3a.** Demonstration that information produced by the measure is meaningful, understandable, and useful to the intended audiences for public reporting (e.g., focus group, cognitive testing) or rationale;

AND

3b. Demonstration that information produced by the measure is meaningful, understandable, and useful to the intended audiences for informing quality improvement ¹⁶ (e.g., quality improvement initiatives) or rationale.



Note

- **16.** An important outcome that may not have an identified improvement strategy still can be useful for informing quality improvement by identifying the need for and stimulating new approaches to improvement.
- **4. Feasibility:** Extent to which the required data are readily available or could be captured without undue burden and can be implemented for performance measurement.
- **4a.** For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).
- **4b.** The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.
- **4c.** Susceptibility to inaccuracies, errors, or unintended consequences and the ability to audit the data items to detect such problems are identified.
- **4d.** Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, ¹⁷ etc.) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use).

Note

17. All data collection must conform to laws regarding protected health information. Patient confidentiality is of particular concern with measures based on patient surveys and when there are small numbers of patients.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5a. The measure specifications are harmonized with related measures;

OR

the differences in specifications are justified.

5b. The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

multiple measures are justified.



Note

18. Measure harmonization refers to the standardization of specifications for related measures with the same measure focus (e.g., *influenza immunization* of patients in hospitals or nursing homes); related measures with the same target population (e.g., eye exam and HbA1c for *patients with diabetes*); or definitions applicable to many measures (e.g., age designation for children) so that they are uniform or compatible, unless differences are justified (e.g., dictated by the evidence). The dimensions of harmonization can include numerator, denominator, exclusions, calculation, and data source and collection instructions. The extent of harmonization depends on the relationship of the measures, the evidence for the specific measure focus, and differences in data sources.



National Quality Forum - MAP "Working" Measure Selection Criteria

Measures within the program measure set are NQF-endorsed or meet the requirements for expedited review

Measures within the program measure set are NQF-endorsed, indicating that they have met the following criteria: important to measure and report, scientifically acceptable measure properties, usable, and feasible. Measures within the program measure set that are not NQF-endorsed but meet requirements for expedited review, including measures in widespread use and/or tested, may be recommended by MAP, contingent on subsequent endorsement. These measures will be submitted for expedited review.

Response option: Strongly Agree / Agree / Disagree / Strongly Disagree

Measures within the program measure set are NQF-endorsed or meet requirements for expedited review (including measures in widespread use and/or tested)

Additional Implementation Consideration: Individual endorsed measures may require additional discussion and may be excluded from the program measure set if there is evidence that implementing the measure would result in undesirable unintended consequences.

Program measure set adequately addresses each of the National Quality Strategy (NQS) priorities

Demonstrated by measures addressing each of the National Quality Strategy (NQS) priorities:

- Sub-criterion 2.1: Safer care
- Sub-criterion 2.2: Effective care coordination
- Sub-criterion 2.3: Preventing and treating leading causes of mortality and morbidity
- Sub-criterion 2.4: Person- and family-centered care
- Sub-criterion 2.5: Supporting better health in communities
- Sub-criterion 2.6: Making care more affordable

Response option for each sub-criterion: Strongly Agree / Agree / Disagree / Strongly Disagree:

NQS priority is adequately addressed in the program measure set



Program measure set adequately addresses high-impact conditions relevant to the program's intended population(s) (e.g., children, adult non-Medicare, older adults, dual eligible beneficiaries)

Demonstrated by the program measure set addressing Medicare High-Impact Conditions; Child Health Conditions and risks; or conditions of high prevalence, high disease burden, and high cost relevant to the program's intended population(s). (Refer to tables 1 and 2 for Medicare High-Impact Conditions and Child Health Conditions determined by the NQF Measure Prioritization Advisory Committee.)

Response option: Strongly Agree / Agree / Disagree / Strongly Disagree:

Program measure set adequately addresses high-impact conditions relevant to the program.

Program measure set promotes alignment with specific program attributes, as well as alignment across programs

Demonstrated by a program measure set that is applicable to the intended care setting(s), level(s) of analysis, and population(s) relevant to the program.

Response option for each sub criterion: Strongly Agree / Agree / Disagree / Strongly Disagree

- Sub-criterion 4.1: Program measure set is applicable to the program's intended care setting(s)
- Sub-criterion 4.2: Program measure set is applicable to the program's intended level(s) of analysis
- Sub-criterion 4.3: Program measure set is applicable to the program's population(s)

Program measure set includes an appropriate mix of measure types

Demonstrated by a program measure set that includes an appropriate mix of process, outcome, experience of care, cost/resource use/appropriateness, and structural measures necessary for the specific program attributes.

Response option for each sub-criterion: Strongly Agree / Agree / Disagree / Strongly Disagree

- Sub-criterion 5.1: Outcome measures are adequately represented in the program measure set
- Sub-criterion 5.2: Process measures are adequately represented in the program measure set
- Sub-criterion 5.3: Experience of care measures are adequately represented in the program measure set (e.g. patient, family, caregiver)
- Sub-criterion 5.4: Cost/resource use/appropriateness measures are adequately represented in the program measure set
- Sub-criterion 5.5: Structural measures and measures of access are represented in the program measure set when appropriate



Program measure set enables measurement across the person-centered episode of care¹

Demonstrated by assessment of the person's trajectory across providers, settings, and time.

Response option for each sub-criterion: Strongly Agree / Agree / Disagree / Strongly Disagree

- Sub-criterion 6.1: Measures within the program measure set are applicable across relevant providers
- Sub-criterion 6.2: Measures within the program measure set are applicable across relevant settings
- Sub-criterion 6.3: Program measure set adequately measures patient care across time

Program measure set includes considerations for healthcare disparities²

Demonstrated by a program measure set that promotes equitable access and treatment by considering healthcare disparities. Factors include addressing race, ethnicity, socioeconomic status, language, gender, age disparities, or geographical considerations (e.g., urban vs. rural). Program measure set also can address populations at risk for healthcare disparities (e.g., people with behavioral/mental illness).

Response option for each sub-criterion: Strongly Agree / Agree / Disagree / Strongly Disagree

- Sub-criterion 7.1: Program measure set includes measures that directly assess healthcare disparities (e.g., interpreter services)
- Sub-criterion 7.2: Program measure set includes measures that are sensitive to disparities measurement (e.g., beta blocker treatment after a heart attack)

Program measure set promotes parsimony

Demonstrated by a program measure set that supports efficient (i.e., minimum number of measures and the least effort) use of resources for data collection and reporting and supports multiple programs and measurement applications. The program measure set should balance the degree of effort associated with measurement and its opportunity to improve quality.

Response option for each sub-criterion: Strongly Agree / Agree / Disagree / Strongly Disagree

- Sub-criterion 8.1: Program measure set demonstrates efficiency (i.e., minimum number of measures and the least burdensome)
- Sub-criterion 8.2: Program measure set can be used across multiple programs or applications (e.g., Meaningful Use, Physician Quality Reporting System [PQRS])

¹ National Quality Forum (NQF), Measurement Framework: Evaluating Efficiency Across Patient-Focused Episodes of Care, Washington, DC: NQF; 2010.

² NQF, Healthcare Disparities Measurement, Washington, DC: NQF; 2011.



Table 1: National Quality Strategy Priorities

Making care safer by reducing harm caused in the delivery of care.

Ensuring that each person and family is engaged as partners in their care.

Promoting effective communication and coordination of care.

Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.

Working with communities to promote wide use of best practices to enable healthy living.

Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new healthcare delivery models.

Table 2: High Impact Conditions				
Medicare Conditions				
Major Depression				
Congestive Heart Failure				
Ischemic Heart Disease				
Diabetes				
Stroke/Transient Ischemic Attack				
Alzheimer's Disease				
Breast Cancer				
Chronic Obstructive Pulmonary Disease				
Acute Myocardial Infarction				
Colorectal Cancer				
Hip/Pelvic Fracture				
Chronic Renal Disease				
Prostate Cancer				
Rheumatoid Arthritis/Osteoarthritis				
Atrial Fibrillation				
Lung Cancer				
Cataract				
Osteoporosis				
Glaucoma				
Endometrial Cancer				



Child Health Conditions and Risks		
Tobacco Use		
Overweight/Obese (≥85th percentile BMI for age)		
Risk of Developmental Delays or Behavioral Problems		
Oral Health		
Diabetes		
Asthma		
Depression		
Behavior or Conduct Problems		
Chronic Ear Infections (3 or more in the past year)		
Autism, Asperger's, PDD, ASD		
Developmental Delay (diag.)		
Environmental Allergies (hay fever, respiratory or skin allergies)		
Learning Disability		
Anxiety Problems		
ADD/ADHD		
Vision Problems not Corrected by Glasses		
Bone, Joint, or Muscle Problems		
Migraine Headaches		
Food or Digestive Allergy		
Hearing Problems		
Stuttering, Stammering, or Other Speech Problems		
Brain Injury or Concussion		
Epilepsy or Seizure Disorder		
Tourette Syndrome		